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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/967,065	09/28/2001	Abhay A. Dharmadhikari	884.492US1	4898

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SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. BOX 2938
MINNEAPOLIS, MN 55402-0938

EXAMINER

LIN, WEN TAI

ART UNIT PAPER NUMBER

2154

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/967,065

Applicant(s)

DHARMADHIKARI ET AL.

Examiner

Wen-Tai Lin

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1 and 3-33 are presented for examination.
2. The text of those sections of Title 35, USC code not included in this action can be found in the prior Office Action.

Claim Rejections - 35 USC § 102

3. Claims 1 and 23-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Xu et al.[U.S. PGPub 20030026211].
4. As to claim 1, Xu teaches the invention as claimed including: a method for selecting a network interface, the method comprising:
 - receiving a policy specifying user preferences [e.g., Fig.5; Abstract; paragraphs 5, 16 and 27; PIU of Fig.4; note that QoS is a policy];
 - selecting a network interface from a plurality of network interfaces by matching the user preferences to a network interface characteristic [paragraphs 17 and 21; e.g., the bearer preference information is matched against the traffic load/resource availability data related to the multiple bearers]; and

modifying a routing table entry associated with the selected network interface, wherein the routing table entry includes a metric field and further wherein modifying the routing table entry includes modifying the metric field [paragraphs 34-35; e.g., modifying the B and T fields].

5. As to claims 23-24, since the features of these claims can also be found in claims 1, they are rejected for the same reasons set forth in the rejection of claims 1 above.

Claim Rejections - 35 USC § 103

6. Claims 3-5 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xu et al.(hereafter "Xu")[U.S. PGPub 20030026211], as applied to claims 1 and 23-24 above, further in view of Nakamura; et al.(hereafter "Nakamura;")[U.S. Pat. No. 6553031].

7. As to claims 3-5, Xu teaches that modifying the B (busy flag) and T (time indicator) fields so as to indicate to the traffic manager whether an arrival packet can be treated as a new session [paragraph 33]. In a sense, by marking B=1 a packet arrived before a certain maximum time since a previously arrived packet (of the same user) has a higher priority of using the same selected network interface.

8. Xu does not specifically teach that the routing entry includes a metric field for adjusting the priority associated with the selected network interface.

However, in the same field of endeavor, Nakamura; teaches a routing table having a plurality of entries each associated with an entry priority [Nakamura; 15, Fig.5; 154, Fig.6; i.e., a metric field], which can be set to 1 (i.e., raising the priority) or set to 0 (i.e., lowering the priority) depending on a connection establishment flag so as to indicate that the associated low priority entries could be deleted (e.g., when no idle area exist for the table) [Abstract; col.7, lines 1-14].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Nakamura;'s metric field for controlling the next-hop address in Xu's routing table because Nakamura;'s method is an efficient way for marking Xu's plurality of network interfaces (each associated with a routing table's out port) as passive or active.

9. As to claims 25-27, since the features of these claims can also be found in claims 1, 3-5 and 23, they are rejected for the same reasons set forth in the rejection of claims 1, 3-5 and 23 above.

10. Claims 6-11 and 28-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xu et al.(hereafter "Xu")[U.S. PGPub 20030026211], as applied to claims 1, 3-5 and 23-27 above, further in view of Lindell [U.S. PGPub 20020039892].

11. As to claims 6-11, Xu further teaches that receiving a policy includes receiving a policy specifying a network preference based on the availability of the network interface [paragraphs 16 and 27].

Xu does not specifically teach that the preference could also be based on the cost, battery consumption, signal strength, latency value, bandwidth, or reliability associated with the network communicably coupled to the preferred network interface.

However, in the same field of endeavor, Lindell teaches a system and method for network and service selection in a mobile communication station wherein a user's preference can be expressed in terms of the network or its associated interfacing elements' cost [e.g., claim 6], battery consumption [e.g., claim 7], signal strength [e.g., claim 8], latency value [e.g., claim 11], bandwidth [e.g., claim 10], or reliability [e.g., claim 12].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Lindell's aforementioned parameters as Xu's network interface selection factor because such selection choices would tailor a customer's need and further promote the use of Xu's system.

12. As to claims 28-33, since the features of these claims can also be found in claims 1, 6-11 and 23, they are rejected for the same reasons set forth in the rejection of claims 1, 6-11 and 23 above.

13. Claims 12-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xu et al. (hereafter "Xu") [U.S. PGPub 20030026211], as applied to claims 1, 3-11 and 23-33 above.

14. As to claims 12-14, Xu teaches using QoS policies to effect traffic management (which naturally includes how the active interfaces are chosen along the routing path can be imposed,

required, or suggested by the application sending the information, wherein the application is a software-based configuration program [paragraph 16]. Thus, although Xu does not specifically teach how the policy is received, it is obvious that an application (along with path-forming policies) may be originated from a user interface, a configuration file or an environment variable, because Xu's network interface preferences is specified in the QoS policy and is adapted to the network environment.

15. As to claims 15-22, Xu teaches substantially the same invention as described in claims 1-14 above. Xu is silent about using: (1) a user interface for specifying user preferences; (2) a policy manager for performing the selection of appropriate network interfaces; and (3) a link monitor for monitoring the status of network interface.

However, since Xu teaches that selection of active interfaces is based on a QoS preference [paragraph 5 and 16], it is obvious that such preference could be directly acquired from a user interface. Further, there must be some means (or calling it a policy manager) in Xu's system to perform the selection based on the expressed preferences; and there must be some means for monitoring the availability of a network interface because Xu system's need to implement the QoS policy in accordance with the user's preference and the various conditions of network traffic. [Abstract; paragraphs 5, 16, 27 and 34-35].

16. Applicant's arguments filed on 5/6/2005 for claims 1 and 3-33 have been fully considered but they are moot in view of the new grounds of rejection.

Conclusion

Examiner note: Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen-Tai Lin whose telephone number is (571)272-3969. The examiner can normally be reached on Monday-Friday (8:00-5:00) .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571)272-3964. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

(571)273-8300 for official communications; and

(571)273-3969 for status inquiries draft communication.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wen-Tai Lin

July 25, 2005

Wen-Tai Lin
7/25/05